

New species and records of *Masuria* Cameron from Nepal (Coleoptera, Staphylinidae, Aleocharinae)

Volker ASSING

Gabelsbergerstr. 2, D-30163 Hannover, Germany.

New species and records of *Masuria* Cameron from Nepal (Coleoptera: Staphylinidae: Aleocharinae). - Further data on the distribution of *Masuria plumbea* Cameron, *M. picipes* Cameron, and *M. loebli* Pace are presented. Three new species are described from Nepal: *M. rugosepunctata* sp. n., *M. ancoriformis* sp. n., and *M. longicornis* sp. n. Primary and secondary sexual characters are figured.

Key-words: Coleoptera - Staphylinidae - Aleocharinae - *Masuria* - Nepal - Himalaya - taxonomy - new species - distribution.

INTRODUCTION

The genus *Masuria* was described by CAMERON (1928), according to whom the new taxon was near *Pronomaea*, but separated from that genus especially by the anteriorly less produced head and the different mouthparts with three-jointed labial palpi, transverse labrum and not bifid ligula. Later the same author attributed the genus to the tribe Masuriini (containing only *Masuria*) and keyed the six species known to him, all of them from northern India (CAMERON 1939). Recently PACE (1989) revised the species of *Masuria*, describing five new species and referring the former genus *Oncosomechusa* Pace with three species to *Masuria* as a subgenus. In the revision a total of 13 species were recognized, ten in *Masuria* s. str. and three in *Oncosomechusa*. Almost all the species of *Masuria* have become known from the Himalayan region of northern India (seven species) and Nepal (eight species). The obviously widespread *M. plumbea* Cameron and *M. picipes* Cameron have been recorded from various localities both in India and in Nepal; most species, however, are known only from their respective type localities. Very recently, one further species of the subgenus *Oncosomechusa* was described from Gansu, northern China (PACE 1997).

Though very diverse in external characters such as body shape, length of elytra, punctuation, colour, microsculpture etc. (see figures in PACE 1989), the genus, particularly *Masuria* s. str., is readily identified by the long labial palpi, whose two terminal joints in normal preparation distinctly protrude from below the labrum and especially by the morphology of the primary sexual characters. For details regarding the morphology of the mouthparts and external characters see Figs 1 a - d and the descriptions by

CAMERON (1928, 1939). These descriptions, however, lack a reference to dimorphisms of the secondary sexual characters: tergum VIII is usually of slightly different shape; the hind margin of the ♀ sternum VIII, apart from being often more strongly convex, is characterized by a row of rather long marginal setae and by the presence of micropubescence in the central area, whereas in the ♂ sternum IX the posterior setae insert at some distance from the hind margin, and the micropubescence is absent.

The aedeagus, though often remarkably different in size, and the spermatheca are somewhat uniform in shape among the species of *Masuria* s. str. On the other hand, the internal structures of the aedeagus, particularly the shape of the base of the flagellum are characteristic and therefore the most reliable characters for the identification of the species.

Unidentified material of Staphylinidae mainly from the collections of the Muséum d'histoire naturelle, Genève (MHNG), but also from the Staatliches Museum für Tierkunde, Dresden (SMTD), contained numerous Nepalese specimens of *Masuria*. An examination of this material and a comparison with types of similar species yielded three new species. In view of the fact that most species of *Masuria* are known only from their type localities and that the material from almost every locality, where *Masuria* was collected, contained at least one new species it can be assumed that our knowledge of this genus, presently comprising 17 species, is far from complete and that numerous further species remain to be discovered.

NEW SPECIES AND RECORDS OF *MASURIA*

Masuria (s. str.) *plumbea* Cameron

50 ex., Nepal, Rasuwa District, Langtang Khola Valley, 2.5 km E Syabru, 1720-1730m, 14.IV.1985, leg. Smetana (MHNG, cAss).

The species was previously known from several localities in Northern India (Chakrata, Mussoorie, Almora) and one locality in Nepal (Tal) (PACE 1988, 1989).

Masuria (s. str.) *picipes* Cameron

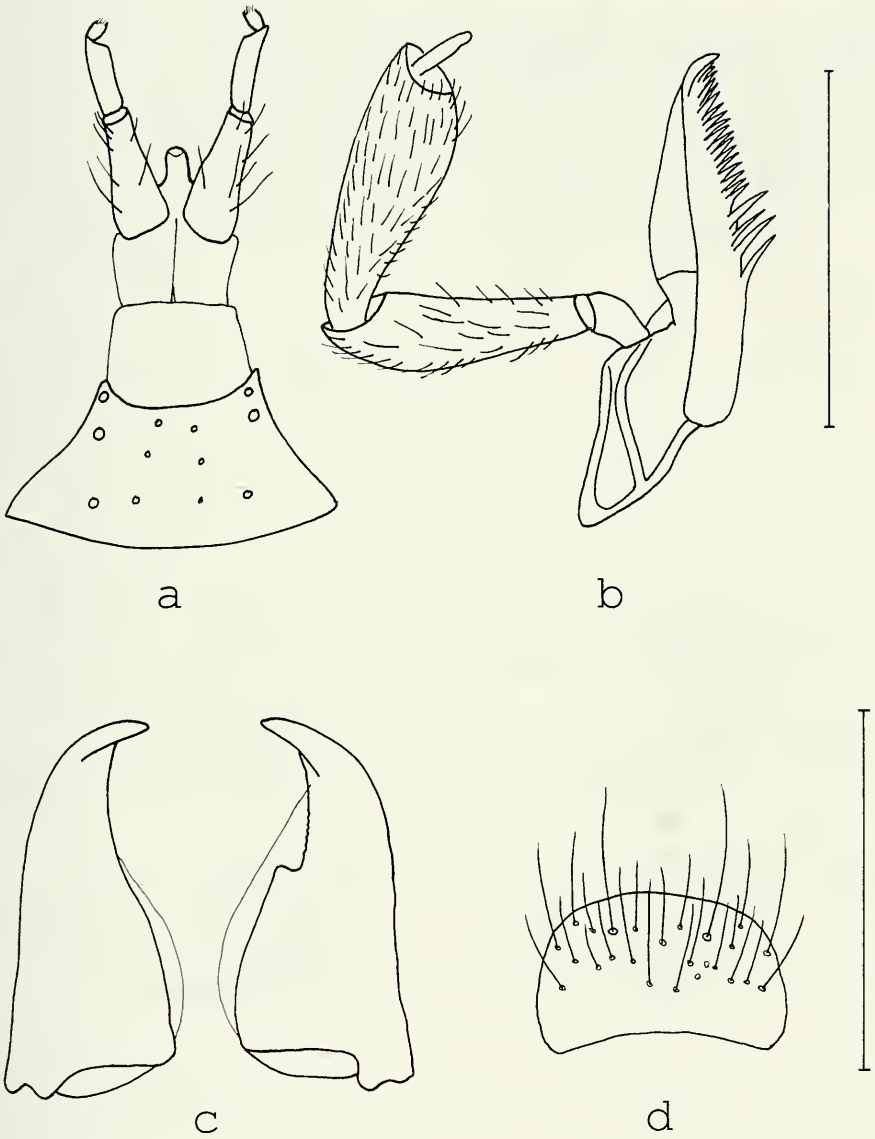
11 ex., Nepal, Rasuwa District, Langtang Khola Valley, 2.5 km E Syabru, 1720-1730m, 14.IV.1985, leg. Smetana (MHNG, cAss); 7 ex., Nepal, Annapurna mountains, Lamjung Himal, below Taunja Danda, 2350m, 6.V.1996, leg. O. Jäger (SMTD, cAss).

Like *M. plumbea*, *M. picipes* is apparently widespread and was previously known from several localities in Nepal and northern India (PACE 1989). The material was compared with two ♂ paralectotypes.

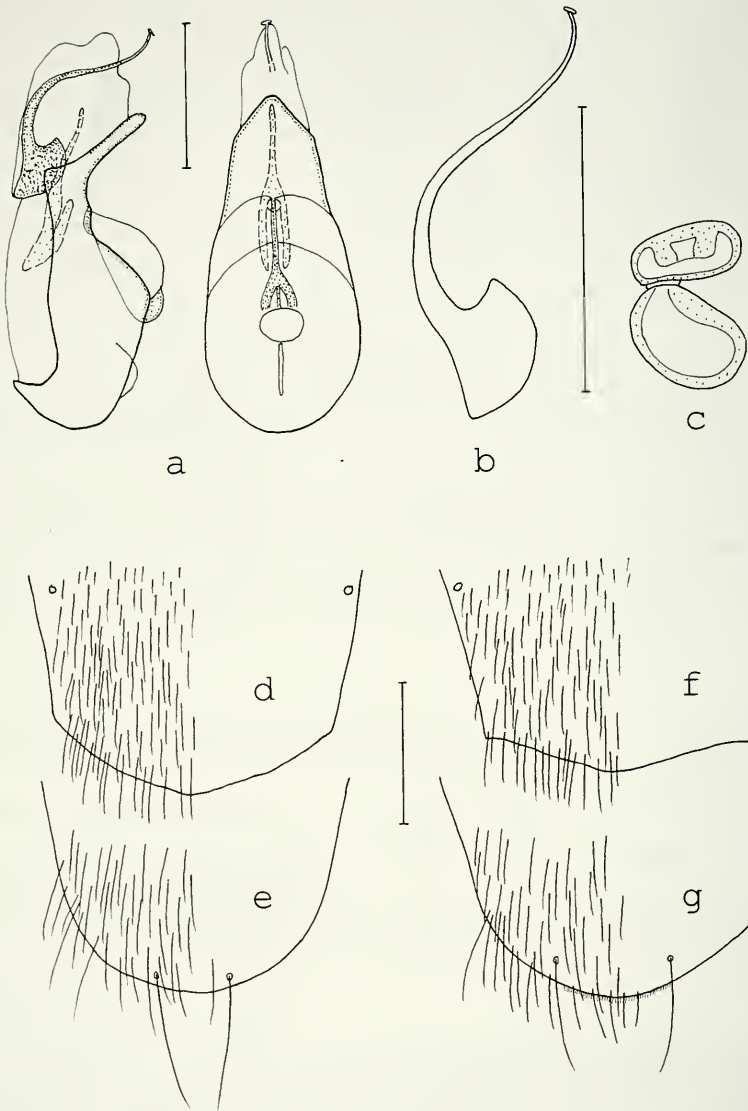
Masuria (s. str.) *loebli* Pace

Figs 2 a - g

38 ex., Nepal, Nuwakot District, between Ghopte and Thare Pati, 3200m, 23.IV.1985, leg. Smetana (MHNG, cAss).



FIGS 1 a - d: *Masuria plumbea* Cameron: labium (a); maxilla (b); mandibles (c); labrum (d).
Scales: 0.2 mm.



FIGS 2 a - g: *Masuria loebli* Pace: aedeagus in lateral and in ventral view (a); flagellum of internal sac (b); spermatheca (c); posterior part of ♂ tergum (d) and sternum VIII (e); posterior part of ♀ tergum (f) and sternum VIII (g). Scales: 0.2 mm.

Comments and comparative notes:

Using the key in PACE (1989), most specimens belonging to this species would key out with *M. rufescens* Cameron, because the pronotum is mostly of the same colour as the head and elytra; a brief diagnosis is presented below. *M. loebli* is distinguished from *M. rufescens* by a less densely punctured head and pronotum, different coloration (in *P. rufescens* the body is reddish with the elytra and abdominal tergum VII darker) and by the different shape of the internal structures of the aedeagus (cf. Fig. 25 in PACE 1989). The specimens indicated above were compared with type material.

Diagnosis:

2.9 - 3.6 mm. Size and proportions similar to *M. picipes*. Colour somewhat variable; usual coloration: pronotum and elytra \pm reddish or light brown; head at least slightly darker, reddish brown to dark brown; abdomen brown to dark brown with the tergal hind margins slightly and the apex distinctly lighter; legs and basal antennomeres ferruginous; antennae distally at least slightly darkened. Whole body without distinct microsculpture and shining; punctuation of forebody distinct, but not very dense, with the interstices at least on head and pronotum on average at least as wide as, usually wider than punctures; punctuation of abdomen sparse and extremely fine.

Head with eyes in dorsal view approximately as long as temples; antennae slender and long, with antennomeres I - III distinctly oblong and subequal in length, IV - X gradually decreasing in absolute and relative length, but at least VI still clearly oblong, and X weakly transverse.

Pronotum with weakly pronounced, \pm obtuse posterior angles, lateral margins in posterior half usually weakly concave. Elytra distinctly wider and at suture (from apex of scutellum to hind margin) usually slightly longer than pronotum; hind wings fully developed.

δ : hind margin of tergum VIII weakly pointed posteriorly, that of sternum VIII evenly convex (Figs 2 d - e); aedeagus in ventral view broad, base of flagellum shaped like an axe (Figs 2 a - b).

φ : hind margin of tergum VIII weakly pointed, that of sternum VIII more strongly convex than in δ (Figs 2 f - g); spermatheca as in Fig. 2c.

Distribution:

The material indicated above was collected near the type locality in northern central Nepal.

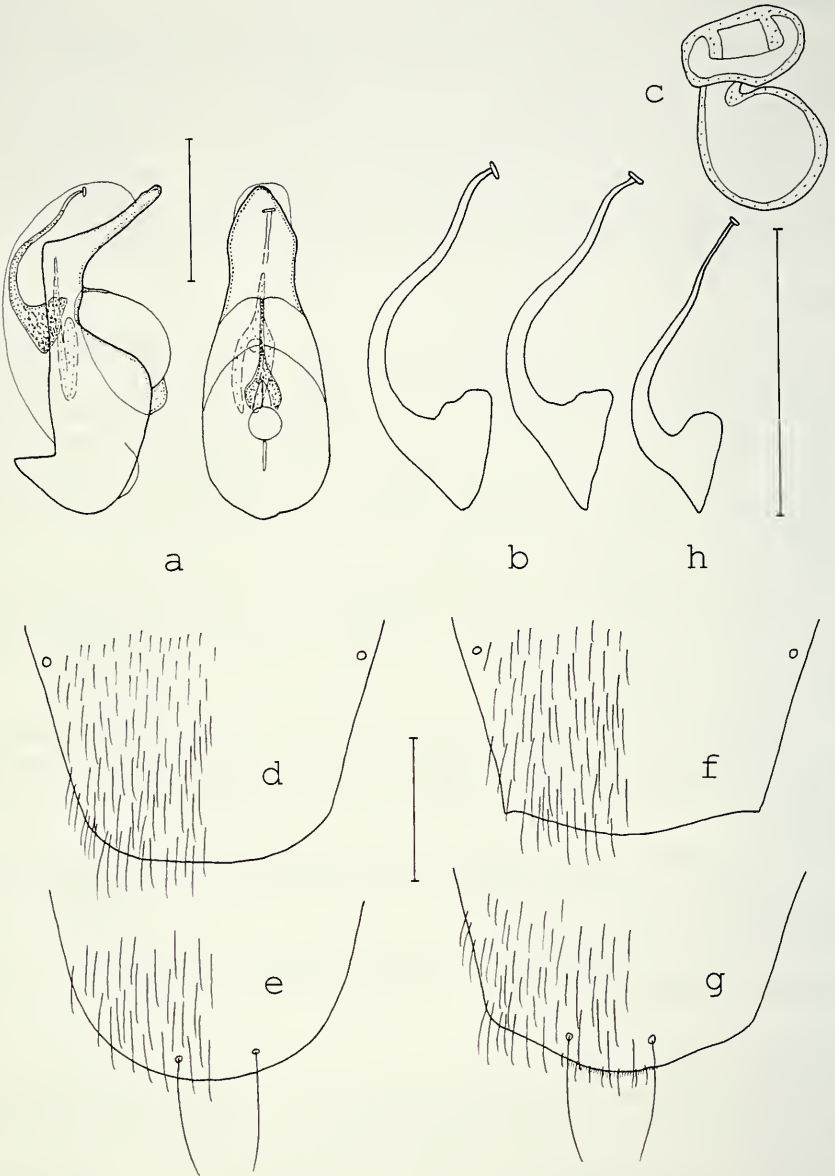
Masuria (s. str.) **longicornis** sp. n.

Figs 3 a - g

Holotype δ : NEPAL, Khandbari Distr., Induwa Khola Valley, 2050m, 16.IV.1984, Smetana & Löbl (MHNG).

Paratypes: 1 δ , 2 φ , same data as holotype (MHNG, cAss).

Derivatio nominis: The name (lat.: with long antennae) refers to one of the characters distinguishing this species from the similar *M. picipes*.



FIGS 3 a - h: *Masuria longicornis* sp. n. (a - g) and *M. picipes* Cameron (h): aedeagus in lateral and in ventral view (a); flagellum of internal sac (b, h); spermatheca (c); posterior part of ♂ tergum (d) and sternum VIII (e); posterior part of ♀ tergum (f) and sternum VIII (g). Scales: 0.2 mm.

Diagnosis:

3.5 - 3.8 mm. Externally very similar to *M. picipes*, but of larger, more slender and lighter appearance. Colour of body blackish brown to black, with the hind margins of the abdominal terga and the margins of the pronotum slightly lighter; legs brown to dark brown with the tarsi yellowish; antennae dark brown with antennomere I and often parts of II and III lighter. Whole body without distinct microsculpture and shining; punctation of forebody distinct and moderately dense, interstices on average less wide than punctures; punctation of abdomen fine, much finer than in *M. picipes*.

Head with eyes in dorsal view approximately as long as temples or slightly shorter; antennae of similar shape as in *M. loebli*, more slender and longer than in *M. picipes*; antennomere V distinctly oblong (in *M. picipes* indistinctly oblong or subquadrate), VI usually weakly oblong (in *M. picipes* subquadrate or weakly transverse), and X subquadrate to weakly transverse (in *M. picipes* distinctly transverse).

Pronotum with \pm obtuse posterior angles, lateral margins in posterior half usually concave. Elytra distinctly wider and at suture (from apex of scutellum to hind margin) slightly shorter than pronotum; hind wings fully developed. Legs longer than in *M. picipes*, mesotarsomeres I - IV distinctly oblong (in *M. picipes* at most weakly oblong), length of metatarsomeres I - V 0.5 - 0.6 mm (in *M. picipes* 0.3 - 0.4 mm).

♂: hind margin of tergum VIII weakly convex posteriorly, that of sternum VIII moderately convex (Figs 3 d - e); aedeagus in ventral view slender (Fig. 3a), base of flagellum as in Fig. 3b (for comparison with flagellum of *M. picipes* see Fig. 3h).

♀: hind margins of tergum and sternum VIII as in Figs 3 f - g; spermatheca as in Fig. 3c.

Comparative notes:

Using PACE (1989), the species would key out with *M. picipes* and *M. kali* Pace. For distinction from the former see diagnosis; from the latter *P. longicornis* is distinguished by larger eyes, a more slender pronotum, the much more slender and smaller aedeagus and the different shape of the base of the flagellum (cf. Figs 13 - 15 in PACE 1989).

Distribution:

The species is known only from the type locality in eastern Nepal.

***Masuria* (s. str.) *rugosepunctata* sp. n.**

Figs 4 a - g

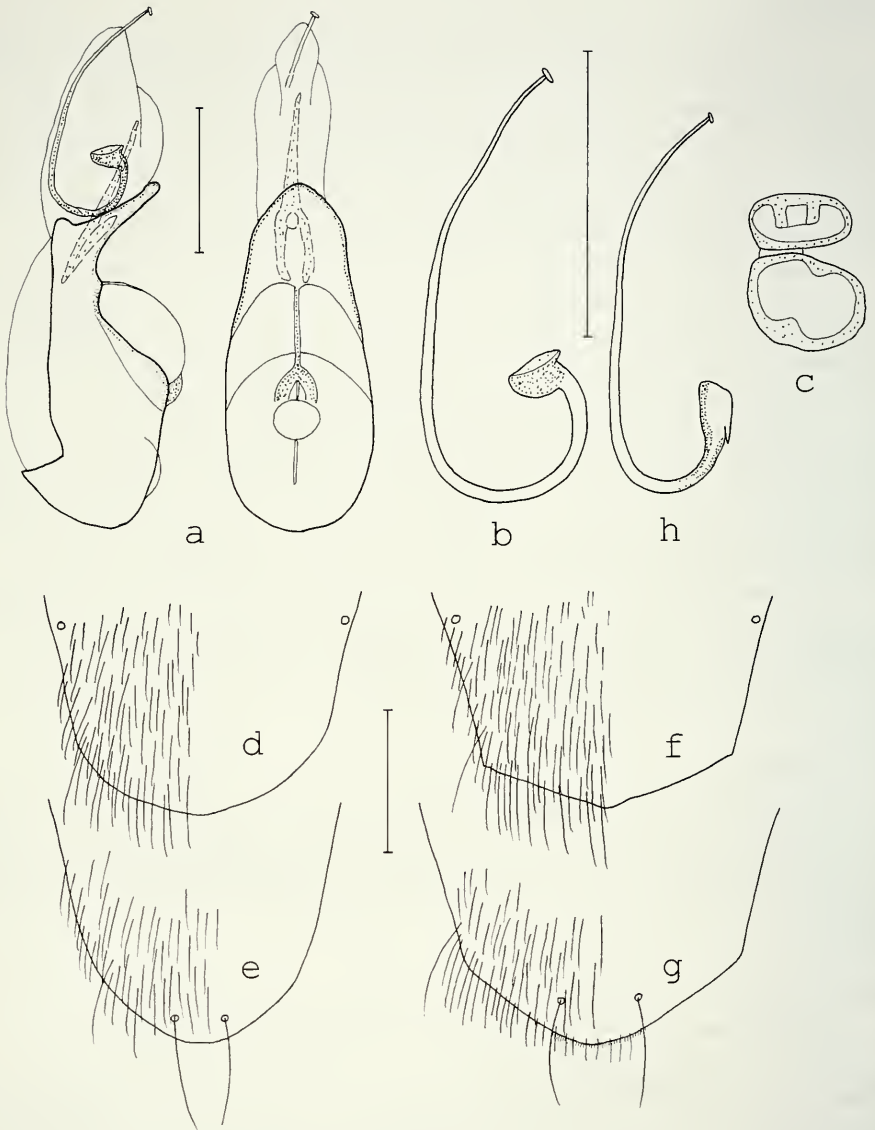
Holotype ♂: NEPAL, Khandbari Distr., Induwa Khola Valley, 2050m, 16.IV.1984, Smetana & Löbl (MHNG).

Paratypes: 15 ex., same data as holotype (MHNG, cAss).

Derivatio nominis: The name (lat.: rugosely punctured) refers to the conspicuously dense, coarse and partly rugose punctation, a character only shared with the similar *M. plumbea*.

Diagnosis:

3.0 - 3.5 mm. Externally (size, proportions, punctation, colour) highly similar to *M. plumbea* Cameron, though on average of slightly lighter colour, with smaller eyes,



FIGS 4 a - h: *Masuria rugosepunctata* sp. n. (a - g) and *M. plumbea* Cameron (h): aedeagus in lateral and in ventral view (a); flagellum of internal sac (b, h); spermatheca (c); posterior part of ♂ tergum (d) and sternum VIII (e); posterior part of ♀ tergum (f) and sternum VIII (g). Scales: 0.2 mm.

which in dorsal view are somewhat shorter than temples (in *M. plumbea* as long as or longer than temples), and with slightly less densely punctured abdomen.

♂: tergum and sternum VIII broader and shorter than in *M. plumbea* (Figs 4 d - e); aedeagus of similar shape and size as in *M. plumbea*, but base of flagellum of different shape (Figs 4 a - b); for comparison with flagellum of *M. plumbea* see Fig. 4h.

♀: tergum and sternum VIII broader and shorter than in *M. plumbea* (Figs 4 f - g); spermatheca as in Fig. 4c.

Comparative notes:

M. rugosepunctata is distinguished from its congeners by the extremely dense and coarse punctation, a character which it only shares with *M. plumbea*; for separation from that species see diagnosis.

Distribution:

The species is known only from the type locality in eastern Nepal, where it was collected together with *M. longicornis*.

Masuria (s. str.) **ancoriformis** sp. n.

Figs 5 a - g

Holotype ♂: NEPAL, Rasuwa Dis., Langtang Kh. Vall., 2.5km E Syabru, 1730m, 14.IV.1985, A. Smetana (MHNG).

Paratypes: 1♂, 1♀, same data as holotype (♂ paratype: 1720m) (MHNG, cAss).

Derivatio nominis: The name (lat.: shaped like an anchor) refers to the characteristic anchor-like shape of the base of the flagellum, which distinguishes this species from the similar *M. plumbea*.

Diagnosis:

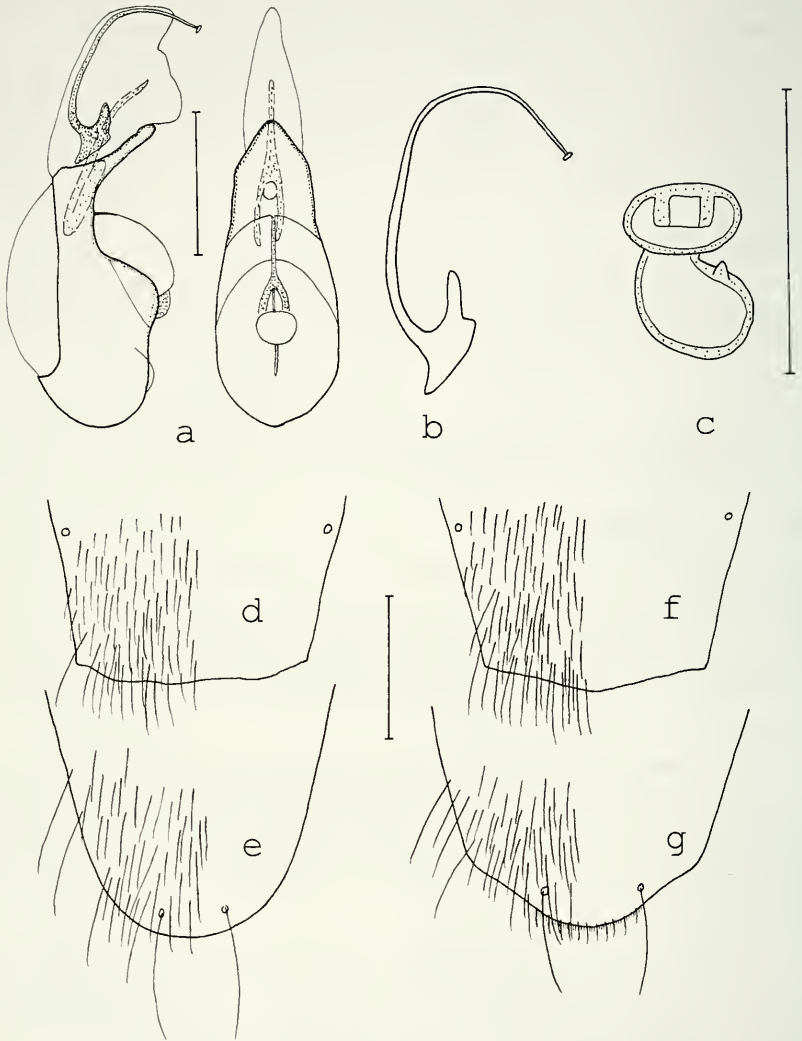
3.0 - 3.5 mm. Externally (size, proportions, colour) highly similar to *M. plumbea*, but punctation of forebody and abdomen less dense, that of head and pronotum less coarse than in that species; surface of body therefore more shiny. In addition, eyes slightly smaller; pronotum more transverse (1.2 - 1.3x wider than long) than in average *M. plumbea* (usually ca. 1.1 - 1.2x wider than long), and with less distinctly concave lateral margins in posterior half.

♂: tergum VIII broader and shorter than in *M. plumbea*, its hind margin ± truncate (in *M. plumbea* strongly convex); hind margin of sternum VIII evenly convex (in *M. plumbea* almost pointed) (Figs 5 d - e); aedeagus of similar shape and size, but ventral process longer and base of flagellum of different shape (Figs 5 a - b).

♀: tergum and sternum VIII broader and shorter than in *M. plumbea*; hind margin of tergum VIII weakly pointed (in *M. plumbea* distinctly pointed) (Figs 5 f - g); spermatheca as in Fig. 5c.

Comparative notes:

For distinction from *M. plumbea* (and also *M. rugosepunctata*) see diagnosis. From *M. parva* Cameron from northern India (type specimens examined), *M. ancoriformis* is separated by the slightly larger size, the longer antennae - with antennomere IV almost 2x wider than long and V distinctly oblong (in *M. parva* antennomere IV is weakly oblong and V subquadrate) -, the more finely punctured pronotum, the clearly



FIGS 5 a - g: *Masuria ancoriformis* sp. n.: aedeagus in lateral and in ventral view (a); flagellum of internal sac (b); spermatheca (c); posterior part of ♂ tergum (d) and sternum VIII (e); posterior part of ♀ tergum (f) and sternum VIII (g). Scales: 0.2 mm.

less dense punctation and pubescence of the elytra, the more distinct punctation of the abdomen, and especially by the much larger size of the aedeagus, the longer flagellum and the different shape of the flagellar base (cf. Figs 17-19 in PACE 1989).

Distribution:

The species is known only from the type locality in northern central Nepal, where it was collected together with *M. plumbea*.

ACKNOWLEDGEMENTS

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